

**NEW VIDEOCADE SCHEDULE** These three Videocades are now available at outlets: #2011 Galactic Invasion; #2014 Grand Prix/Demolition Derby; #4004 Biorythm. We should see Space Fortress and Pirate's Chase in October, and then Music Maker 1 in November. Then Bowling, Pac-Man, Wizard of Wor, and Coloring Book are due in January. Others in work include Zap, Checkers and Chess. The names of those that are full-size arcade games will change a little bit to provide some differentiation.

The new AstroVision Basic should be out by the time you receive this. If you have difficulty in purchasing any of the above cartridges from your local sales outlet, drop me a line with a \$30 deposit for each cartridge desired.

**RESUBSCRIPTIONS** This is the last issue of the year, and so a subscription renewal is necessary.

→ The rate is again \$12.50 for the full year, Volume IV.. ←

**RETROSPECTION** The current volume, of 130 pages, surpasses all of our previous efforts, resulting in a per page cost of 9 cents. • We mechanised a considerable portion of the production, so that only a minimal amount of hand labor is necessary to get the Newsletter out to you. • We had a booth at the West Coast Computer Faire and met a lot of subscribers, and added a goodly number to our rolls - as well as giving a large number of urchins a chance to play the Galaxian cartridge. • We started the \$100 per issue contest for the best program of the month, and have made four disbursements to date. Initially agreed to be funded by Dan Dawson of AstroVision, these payments have so far been totally funded by the ARCADIAN. • In the area of subscriber-operations, the Blue Ram memory addition was produced to allow subscribers greater scope for their programs. • New hardware was announced and deliveries started on the Viper memory addition system. • The Blue Ram memory addition people are providing an EPROM-burning service, and the new Extended Basic is available in both ROM and tape versions. • At least two people are working on programs to be available on PROMs for our enjoyment. • And Dick Belton is making the Bally self-check system (BALCHECK) available. So there have been a number of third-party activities to make this year better than last.

**SATISFACTION** One of the more pleasant aspects of producing this Newsletter is experiencing the expansion of our capabilities. We are all learning together, and this education is one of the major reasons for the ARCADIAN. The item that brings this to the forefront at the moment is Bob Weber's character making program. Back on page 83, Rich Tietjens showed us how to create a graphic character by manually calculating the inputs to his GRAPHIC CHARACTER MAKER program. Bob Hensel, in his TELLING TIME program on p.114 used the technique to create his bird character - and now the evolutionary processes used by our subscribers has provided us all with the technique that allows the computer to do all the work. And we all benefit.

**CONTEST ENTRANTS** this month are: MATCH by Ed Groebe and REBOUND by Dave Martin. The retiring judge this time is George Moses.



# ARCADIAN

```

2 . MATCH
5 . ED G
10 CLEAR ;BC=56;FC=55
14 CY=0;CX=-30;PRINT "M A T C H"
15 FOR C=1TO 500;NEXT C;CLEAR
20 CY=0;PRINT "      TRY TO MATCH";PRINT ;PRINT "      PAIRS OF NUMBERS !"
30 PRINT ;PRINT ;PRINT "      KEY IN LETTERS";PRINT ;PRINT "      FOR YOUR GUESS
ES !"
32 PRINT ;PRINT ;PRINT "      1 OR 2 PLAYERS ?"
34 P=KP
37 IF P>50GOTO 34
38 IF P<49GOTO 34
39 CX=0;TV=P;Q=P-48
40 PRINT
60 K=0;J=0;S=0;T=0;CLEAR
80 CY=0;CX=-15;PRINT "WAIT !"
100 FOR Z=0TO 85;@(Z)=0;NEXT Z
130 U=RND (10)-1
150 IF @(U)=1GOTO 130
160 @(U)=1;GOTO 170
170 FOR Z=1TO 2
175 W=RND (20)
180 IF @(64+W)>0GOTO 175
185 @(64+W)=U
190 NEXT Z
192 FOR Z=0TO 9;IF @(Z)=0GOTO 130
196 NEXT Z;CLEAR
200 X=-60;Y=30;Z=64
210 FOR Y=30TO -30STEP -20
220 FOR X=-60TO 60STEP 30
230 Z=Z+1;CX=X;CY=Y;TV=Z
250 BOX X,Y,20,18,3
260 NEXT X;NEXT Y
300 FOR P=1TO Q
302 CY=0;CX=75;PRINT #0,P
305 A=0
310 IF P=1T=T+1;BC=8;FC=7
311 IF P=2S=S+1;BC=80;FC=7
320 W=KP
325 IF W<65GOTO 320
326 IF W>84GOTO 320
327 IF @(W)=10GOTO 320
330 GOSUB 400+W
340 A=20
350 V=KP
355 IF V<65GOTO 350
356 IF V>84GOTO 350
357 IF V=WGOTO 350
358 IF @(V)=10GOTO 350
360 GOSUB 400+V
370 GOTO 600
465 X=-60;Y=30;GOTO 490
466 X=-30;Y=30;GOTO 490
467 X=0;Y=30;GOTO 490
468 X=30;Y=30;GOTO 490
469 X=60;Y=30;GOTO 490
470 X=-60;Y=10;GOTO 490
471 X=-30;Y=10;GOTO 490

```

The object of this board game, for either one or two players, is to select the pairs of cards (A to T) which have matching numbers (0 to 9). As letter guesses are entered on the key-pad the cards are "turned over" to reveal the numbers. If a match is made the two cards are removed from the board and the player tries two more cards. If a match is not made the cards are turned down again.

If there are two players, they take turns guessing two cards at a time. At the end of the game the number of pairs matched for each player is shown. If there is just one player the number of tries needed to complete all 10 matches is shown at the end. The challenge is to have as few tries as possible--10 would be a perfect score.

Both the color and a number of the right of the screen indicate which player should enter a letter (blue is #1, red is #2). A short instruction at the beginning explains what to do.

Ed Groebe  
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Palos Hills, IL 60463



# ARCADIAN

```

472 X=0;Y=10;GOTO 490
473 X=30;Y=10;GOTO 490
474 X=60;Y=10;GOTO 490
475 X=-60;Y=-10;GOTO 490
476 X=-30;Y=-10;GOTO 490
477 X=0;Y=-10;GOTO 490
478 X=30;Y=-10;GOTO 490
479 X=60;Y=-10;GOTO 490
480 X=-60;Y=-30;GOTO 490
481 X=-30;Y=-30;GOTO 490
482 X=0;Y=-30;GOTO 490
483 X=30;Y=-30;GOTO 490
484 X=60;Y=-30;GOTO 490
490 GOTO 500+A
500 BOX X,Y,18,16,2
510 CX=X;CY=Y;PRINT #0,@(W)
517 RETURN
520 BOX X,Y,18,16,2
525 CX=X;CY=Y;PRINT #0,@(U)
540 RETURN
600 IF @(W)=@(U)GOTO 700
620 IF @(W)#@(U)GOTO 800
700 @(W)=10;@(U)=10
710 IF P=1 K=K+1
711 IF P=2 J=J+1
720 IF K+J=10GOTO 900

```

```

730 A=450
740 GOSUB 400+W
750 GOSUB 400+U
790 GOTO 305
800 A=350
820 GOSUB 400+W
825 A=360
830 GOSUB 400+U
835 NEXT P
840 GOTO 300
850 BOX X,Y,20,18,2
855 CX=X;CY=Y;TV=W;GOTO 880
860 BOX X,Y,20,18,2
865 CX=X;CY=Y;TV=U
880 BOX X,Y,20,18,3;RETURN
900 CLEAR
920 CY=0;CX=-24
930 PRINT " GAME OVER"
931 IF Q=2GOTO 970
935 PRINT ;PRINT ;PRINT " ,T," TRYS !"
940 GOTO 15
950 BOX X,Y,20,20,2
960 RETURN
970 PRINT ;PRINT ;PRINT " #1 MATCHED",K
980 PRINT " #2 " ,J
990 GOTO 15

```

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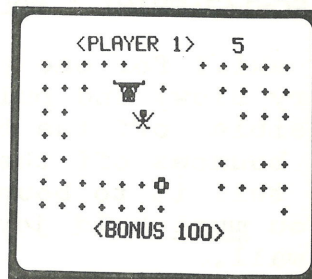


SOFTWARE  
8599 FRAMEWOOD DR  
NEWBURGH IN. 47630

## LOOKOUT for the BULL!



BOX 94801  
SCHAUMBURG, IL 60193



### TAPE 10

THE CHALLENGE NEVER ENDS, BECAUSE THE LEVEL OF PLAY IS BASED ON YOUR SCORE. YOU ARE IN A FIELD PICKING CLOVER ONE BY ONE AND FROM TIME TO TIME A LARGE (BONUS) CLOVER POPS UP. THIS SOUNDS EASY BUT WE'VE ALSO PUT A BULL IN THIS FIELD WITH YOU AND HE'S GETTING MAD BECAUSE YOU'RE PICKING HIS CLOVER. THE MORE YOU PICK THE Madder HE GETS AND THE FASTER HE RUNS. HE WILL GET YOU, SO WE'VE ALSO GIVEN YOU UP TO TEN LIVES. BELIEVE ME YOU WILL NEED THEM. THE GAME CAN BE PLAYED WITH ONE TO FOUR PLAYERS ON INDIVIDUAL CONTROL HANDLES. KEEPS SCORE AND LEVEL OF PLAY FOR EACH PLAYER, CHANGES COLOR AS HIGHER LEVELS ARE REACHED. SIDE ONE HAS MACHINE GRAPHIC BULL AND MAN. SIDE TWO IS FOR THE MORE ADVANCED PLAYER. TAPE IS RECORDED IN BOTH BALLY AND ASTROVISION BASIC (THE COMPUTER SELECTS THE PROPER ONE). THIS IS PROBABLY THE MOST FUN AND CHALLENGING GAME EVER WRITTEN IN BASIC. LOADS QUICKLY. \$10.95





```

1 . REBOUND
2 . BY DAVE MARTIN
10 H=0;S=0;G=20;E=75;F=35;M=1000;R=100;N=10;GOTO 180
20 L=(K#2)b127;&(2)=L;&(3)=L;L=116+(K=2);BC=L;&(0)=L;&(1)=L;FC=0;X=5;Y=5
30 CLEAR ;&(9)=212;FOR D=25TO -25STEP -N;FOR C=-65TO 65STEP N
35 BOX C,D,3,3,1;BOX C,D,5,1,1;BOX C,D,1,5,1;NEXT C;NEXT D
40 NT=5;A=RND (3)b5-N;B=RND (3)b5-N;IF A=0IF B=0GOTO 40
50 CY=40;CX=-F;PRINT "/\GET READY/>\\";FOR Z=0TO 800;NEXT Z;BOX 0,40,160,8,2;I
F KGOSUB 250
60 BOX X,Y,5,5,1;FOR T=-84TO 30bM;X=X+A;Y=Y+B;IF (ABS(X)=E)+(ABS(Y)=F)GOTO R
70 P=P+PX(X,Y+2);FOR Z=0TO W;IF X=IIF Y=JGOTO 280
80 IF P=84S=S+Mb(K+1)+8400-Tc2b5;GOTO 140
90 NEXT Z;BOX X,Y,5,5,3;BOX X-A,Y-B,5,5,2;NEXT T;GOTO 130
100 BOX X,Y,5,5,3;BOX X-A,Y-B,5,5,3;IF ABS(X)=E A=-Xc15;B=JY(1)b5
110 IF ABS(Y)=F B=-Yc7;A=JX(1)b5;IF ABS(X)=EGOTO 300
120 MU=E;T=T-1;NEXT T
130 &(22)=111;FOR Z=30TO 150;&(17)=Z;&(18)=Z+13;NEXT Z;&(22)=0;&(17)=0;&(18)=0;
S=S+PbR-(84-ABS(T))c2b5;GOTO 180
140 CLEAR ;&(9)=50;BC=161;FC=134;CY=8;NT=3;PRINT #15,(K+1)bM;CX=-35;PRINT "++ B
ONUS! ++
150 IF K<2CX=-F;PRINT "SCORE: ",#6,S
160 &(21)=15;FOR Z=1TO 25;FOR Q=15TO G;&(19)=Q;NEXT Q;NEXT Z;&(21)=0;&(19)=0
170 IF K<2K=K+1;P=1;GOTO G
180 CLEAR ;&(9)=50;BC=0;FC=0;NT=0;PRINT " YOUR SCORE HIGH SCORE
190 PRINT " -----
200 IF S>H H=S
210 PRINT #8,S,#14,H;CY=0;PRINT "BALL SPEED-a
220 CY=-14;CX=-36;PRINT "R U";CX=-24;PRINT "E O N";CX=-12;PRINT "B
D";CY=-39
225 PRINT " - THE MAD PROGRAMMER",;BC=8;FC=7;CY=0
230 BOX 0,-39,126,9,3;W=&(28)c50;CX=0;PRINT #2,W,;IF TR(1)K=0;S=0;P=1;I=1;J=1;G
OTO G
240 GOTO 230
250 I=RND (13)bN-E;J=RND (6)bN-F;IF (I=5)+(J=5)GOTO 250
260 IF (I=J)+(I+J=10)GOTO 250
265 IF K#2BOX I,J,3,1,2;BOX I,J,1,3,2
270 FOR U=1TO 16;BOX I,J,5,5,3;MU=R;NEXT U;RETURN
280 IF P#84GOTO 130
290 S=S+Mb(K+1)+8400-Tc5b5;GOTO 140
300 CY=36;NT=0;&(9)=-1;BC=142;PRINT " BALL IS STUCK IN CORNER!!";GOTO 130

```

Dave Martin  
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REBOUND is a game of skill for one player. Turn knob to select ball speed (0-fast 5-very slow) and pull trigger. You try to clear as many diamonds as possible off the board using a ball that may only be controlled as it bounces off the wall. Use joystick when ball approaches a wall to tell it to bounce (45 degrees) on the right, left, up, or down. You must hold joystick position until after ball has bounced off the wall.

If you clear the board, you are challenged to clear a second and third board. On the second board, one diamond is marked and will flash before you begin. If you do not erase this one last, the game is over. On the third board, one diamond will flash, but is not marked. You must remember this one to erase it last!

A couple more catches : points are deducted for crossing a path you have already travelled, and finally, you cannot bounce into a corner, or the game ends.



# ARCADIAN

```

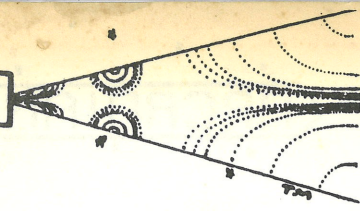
1 .
2 .
3 .
4 . GOBBLERS
5 . BY BOB WISEMAN
10 GOTO 900
100 C=28-(@(P-1)-6);c10b15;R=Rb15-72;RETURN
110 FOR P=1TO 2;GOSUB 100;W= @(P-1);V= @(W);@(W)=0;IF V@(P+1)= @(P+1)+V;FOR X=1TO
V;MU=87;NEXT X
113 IF V L=L-1;IF L=0GOTO 1000
115 BOX R,C,15,15,1;NEXT P
120 CX=Z;NT=0;PRINT @(2),@(3)," ",;NT=2
125 FOR P=1TO 2
130 B=JX(P);IF BGOTO 150
140 B=-10bJY(P)
150 @(P+3)=B;IF BGOSUB 100;X=Bc5;Y=Rb2;BOX R+Y,C-X,13-XbX,13-YbY,2
160 NEXT P;FOR P=1TO 2;GOSUB 100;B= @(P+3)
170 IF BGOSUB 100;GOSUB 300;GOSUB 100;GOSUB 400
180 NEXT P;M=M+1
200 GOTO 110
300 BOX R,C,15,15,2;IF B=0RETURN
305 X=P-1;A=B+ @(X);IF (A<6)+(A>55)A= @(X)
320 IF @(2-P)=A A= @(X)
330 @(X)=A;RETURN
400 IF B#10BOX R,C-6,15,3,1
405 IF B#-10BOX R,C+6,15,3,1
410 IF B#-10BOX R,C-6,15,3,1
420 IF B#1BOX R+6,C,3,15,1
430 IF B#-1BOX R-6,C,3,15,1
440 RETURN
800 BOX R,C,7,7,1;BOX R-1,C+2,2,2,2;D= @(A);IF D>1BOX R+2,C-1,2,2,2
810 IF D>2BOX R+2,C+2,2,2,2
820 IF D=4BOX R-1,C-1,2,2,2
825 MU=Db15
830 RETURN
900 CLEAR ;&(10)=15;CY=40;Z=-60;CX=Z;P=1
905 L=50;PRINT "ONE MOMENT PLEASE",
910 FOR A=6TO 55;@(A)=RND (4);@(0)=A;GOSUB 100;GOSUB 800;NEXT A
920 @(0)=28;@(1)=33;@(2)=0;@(3)=0;CX=Z
930 PRINT "GET READY -- SET!",
940 FOR X=16TO 176;&(10)=X;FOR Y=1TO 4;NEXT Y;NEXT X
950 CX=Z;PRINT "GO!! GO!! GO!!",
990 GOTO 110
1000 CX=Z;PRINT "STOP!! STOP!! ",
1005 CX=Z
1010 IF @(2)= @(3)PRINT "THIS GAME IS DRAWN",;STOP
1020 IF @(2)> @(3)PRINT "PLAYER ONE WINS",
1030 IF @(2)< @(3)PRINT "PLAYER TWO WINS",
1040 STOP
1060 PRINT ABS(@(2)- @(3)),;STOP

```

Bob Wiseman  
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THIS IS A TWO PLAYER GAME PLAYED ON A TEN BY FIVE FIELD. THE OBJECT OF THE GAME IS TO HAVE YOUR GOBBLER GOBBLE UP MORE SQUARES THAN YOU OPPONENT. WHEN PLAY BEGINS, USE THE JX AND JY TO DIRECT YOUR GOBBLER AROUND THE SCREEN. EACH PRINTED SQUARE IS WORTH ONE, TWO, THREE, OR FOUR POINTS DEPENDING UPON HOW MANY DOTS ARE THERE. THE GAME ENDS WHEN THE LAST SQUARE IS EATEN.





```

1 .B00
10 CLEAR ;FC=133;BC=0;H=1;CX=-11;CY=6;PRINT "HAPPY";CX=-25;CY=-6;PRINT "HALLOW
EEN!";GOSUB 70;GOTO 200
15 V=3;Q=0;RETURN
20 LINE 0,Yb40,4;LINE Xb2,Yb40,1;LINE Xb4,Yb38,1;LINE Xb6,Yb35,1;LINE Xb8,Yb31
,1;LINE Xb9,Yb26,1
21 LINE Xb10,Yb20,1;LINE Xc5b53,Yb10,1;LINE Xb11,0,1;RETURN
30 LINE X,Y,4;LINE X-10,Y-20,3;LINE X+10,Y-20,3;LINE X,Y,3;RETURN
40 FOR T=1TO Nb111;NEXT T;RETURN
46 BOX 0,-8,9,15,3;RETURN
50 NT=20;MU=62;BOX -25,16,23,21,1;MU=59;NT=3;GOSUB 40;LINE -35,5,4;LINE -25,25
,3;LINE -15,5,3;GOSUB 40;RETURN
60 LINE 0,-17,4;LINE Xb3,-15,3;LINE Xb5,-13,3;LINE Xb8,-11,3;LINE Xb5,-26,3;LI
NE Xb3,-28,3;LINE 0,-30,3;RETURN
70 NT=150;FOR N=0TO 3;MU=0(N);NEXT N;NT=0;RETURN
80 LINE 0,40,4;LINE Xb3,38,1;LINE Xb6,35,1;LINE Xb8,25,1;LINE Xb9,15,1;LINE Xb
9,5,1;LINE Xb8,-5,1
82 LINE Xb6,-15,1;LINE Xb5,-15,1;LINE Xb5,-30,1;LINE Xb4,-35,1;LINE Xb3,-40,1;
LINE 0,-42,1;RETURN
85 V=3;FOR N=-46TO 46;Q=Nc4;IF RM=0GOSUB 100
86 LINE N,6,4;LINE 0,43,1;NEXT N;RETURN
87 FOR X=-1TO 1STEP 2;BOX Xb18,9,13,15,3;NEXT X;GOSUB 46;BOX 0,-25,35,13,3
88 FOR X=-14TO 14STEP 7;FOR Y=-28TO -22STEP 6;BOX X,Y,5,5,3;NEXT Y;NEXT X;RETU
RN
90 GOSUB 15;A=Z;B=Z;FOR X=-54+ZTO 0;FOR Y=A TO 43;IF PX(X,Y) A=Y;GOTO 94
92 NEXT Y
94 FOR Y=BTO -43STEP -1;IF PX(X,Y) B=Y;GOTO 97
96 NEXT Y
97 Q=Q+1;IF Q=2 Q=0;GOSUB 100
98 LINE X,A,4;LINE X,B,H;LINE -X,A,4;LINE -X,B,H;IF H=2RETURN
99 NEXT X;NT=0;RETURN
100 V=V+1;IF V>11 V=4
105 NT=20;MU=0(V);NT=0;RETURN
200 FOR X=-5TO 5STEP 10;FOR Y=-1TO 1STEP 2;GOSUB 20;NEXT Y;NEXT X;LINE -7,40,4;
LINE 0,43,1;LINE 14,43,1;LINE 0,40,1;Z=0;GOSUB 90
300 FOR G=1TO 6;N=3;GOSUB 40;GOSUB 100;NEXT G
500 Y=25;X=-Y;GOSUB 30;X=Y;GOSUB 30;Y=10;X=0;GOSUB 30;X=5;GOSUB 60;X=-5;GOSUB 6
0;N=5;GOSUB 40;GOSUB 50;GOSUB 50;GOSUB 50
600 GOSUB 70;BOX 0,-21,82,21,1;FOR N=0TO 28STEP 2;BOX 0,-25,17-N,15-N,3;NEXT N
660 N=25;GOSUB 40
700 CLEAR ;FC=11;GOSUB 85;BOX 0,-18,93,51,1;BOX 25,25,9,25,1;GOSUB 87;BOX 34,-3
1,15,25,3;BOX 30,-33,2,2,3;BOX -34,-26,15,11,3
740 BOX 0,0,149,87,3;N=5;GOSUB 40;H=2;GOSUB 15;FOR X=-75TO -27;A=43;B=-A;GOSUB
97;NEXT X;B=23
752 GOSUB 15;FOR X=-26TO 0;B=23;GOSUB 97;NEXT X
760 X=5;GOSUB 80;X=-5;GOSUB 80;N=2;NT=20;FOR G=1TO 10;FC=RND (256);MU=83;MU=82;
GOSUB 40;NEXT G;NT=0;FC=92;H=1
1000 Z=10;GOSUB 90;FC=7;BC=0;GOSUB 87;CY=-40;CX=-70;PRINT "TRICK...";GOSUB 70;N
=9;GOSUB 40;FC=155;BOX 0,24,151,39,2
1200 CX=27;PRINT "OR TREAT!";LINE -60,6,4;LINE 60,6,1;GOSUB 85;GOSUB 46;LINE 0,
4,4;LINE -7,-10,2;LINE -4,-15,2
1300 BOX -7,-22,5,5,2;FOR N=-44TO -20STEP 4;LINE N,0,4;LINE N-10,-35,1;GOSUB 100
;LINE -N,0,4;LINE 10-N,-35,1;GOSUB 100;NEXT N
1310 FOR N=1TO 11;GOSUB 100;NEXT N;NT=200;MU=56;NT=0;N=20;GOSUB 40;GOTO 10

```



The following instructions apply for ease in tape-loading this program:

After the program is entered, enter the following:

```
10 TV=0; TV=2
20 PRINT "&(20)=130
30 PRINT "@(0)=60;@(1)=59;@(2)=68;@(3)=67;@(4)=56;@(5)=59;@(6)=63;@(7)=68;@(8)
=64;@(9)=61;@(10)=63;@(11)=59
40 PRINT ":RETURN ;RUN
```

Then turn the tape recorder on for recording and press GO. When the program has printed and ":RETURN;:INPUT 2" appears on the screen, turn the tape recorder off but do not rewind the tape.

Then clear the memory (ERASE) and enter the following program:

```
10 :PRINT ;PRINT ".HALLOWE'EN GRAPHICS";PRINT ".BY S. WALTERS 10/11/80";PRIN
T ;LIST ;PRINT ;PRINT ".STANDBY FOR";PRINT ":RETURN ;:INPUT 2
```

Then enter the following: :PRINT; RUN (without GO)

Now turn the tape recorder on for recording and press GO. When all the data has been printed, turn the tape recorder off and rewind it. The tape is now ready to load with :INPUT and run automatically when loaded.

WHERE's the Add-Under? Well, I understand that the specifications have finally been settled upon - apparently everything up to now has been on a sort of 'what if' or 'would you like' or 'suppose we added' basis. The board layout is underway right now, and the most recent list of "goodies" remains at 16K RAM, 32K ROM, the VOTRAX speech chip, Z-GRASS, of course, and expansion capability to disc. At this point, I think they will have to work hard to get a real prototype ready for the Spring Consumer Electronic Show. I expect I'll be there to see what's what.

ARCADIAN PROGRAMS ON TAPE, mentioned on p. 101, are becoming a reality. As part of the advertising campaign to get more subscribers, we are informing purchasers of the new ARCADE PLUS that they can receive a "Sampler" tape of ARCADIAN programs. This sampler is on the 2000 baud format usable by the new machine, and contains 10 programs of various types (graphics and games). Each of the 10 authors of the programs on the tape receive a royalty on each purchase.

We are also working on a set of taped programs, to fall under the general title of "Best of ARCADIAN, 198x", each of which will contain a selection of the most popular of a particular Volume of the ARCADIAN. We are now busy "translating" the programs to the 2000 baud format, and will make these also available to purchasers of the ARCADE PLUS, as well as to purchasers of the AstroVision Basic cartridge itself. Again, the authors will receive a royalty for their programs.

EXTENDED BASIC, as produced by Perkins Engineering, is called "Blue Ram Basic", and will sell for \$49.95. The purchaser will receive a cartridge that slips into the game slot and can access the Blue Ram memory. We will start to have some programs for this system in one or two issues. The programs themselves should be able to work on the Viper System as well, with possibly some trivial changes - we have to try them out to be more definitive. We strove to maintain compatibility, but there is always one or two little things that need changing. The AstroVision and Bally Basics are similarly compatible - and their programs need minor changes.



```

10 :RETURN ;CLEAR
20 FOR X=-70TO 65STEP 8;BOX X,0,1,72,1;NEXT X;FOR Y=-36TO 36STEP 8;BOX -6,Y,12
8,1,1;NEXT Y
25 A=-66;B=-32
30 BOX A,B,7,7,3
40 BOX A,B,7,7,3;A=A+JX(1)*8;IF A>65A=62
50 IF A<-70A=-66
60 B=B+JY(1)*8;IF B>36B=32
65 IF TR(1)IF A>60GOTO 200
70 IF B<-36B=-32
80 BOX A,B,7,7,3;IF TR(1)IF KN(1)>0BOX A,B,7,7,1;GOTO 80
90 IF TR(1)IF KN(1)<0BOX A,B,7,7,2;GOTO 30
100 GOTO 40
200 A=128;B=0;C=0;FOR Y=32TO -32STEP -8;FOR X=-66TO -10STEP 8;IF PX(X,Y)B=B+A
210 A=A/2;NEXT X;GOSUB 500;A=128;B=0;FOR X=-2TO 54STEP 8;IF PX(X,Y)B=B+A
220 A=A/2;NEXT X;GOSUB 500;A=128;B=0;NEXT Y;GOTO 1030
500 @(C)=B;C=C+1;RETURN
1020 %(Y)=V;Y=Y+W;RETURN
1030 CLEAR ;NT=1;X=0;Y=20200;R=Y;W=2;Z=1020
1100 V=-43;GOSUB Z;V=6965;GOSUB Z
1110 V=10240;GOSUB Z;V=20210;GOSUB Z
1120 V=-13871;GOSUB Z;V=-1936;GOSUB Z
1130 V=-32690;GOSUB Z;V=12288;GOSUB Z
1140 V=2432;GOSUB Z;V=527;GOSUB Z
1150 V=-247;GOSUB Z;V=78;GOSUB Z
1160 W=1;Y=Y-W;FOR S=0TO CSTEP 2;IF @(S)=128IF @(S-1)=0CY=40;PRINT "DOES NOT COM
PUTE!";L=1
1170 V=@(S);GOSUB Z;V=@(S+1);GOSUB Z;NEXT S
1190 %(20203)=10320;CALLR
1200 IF L=1L=0;GOTO 2000
1210 CY=0;PRINT "OK?";IF KP#13PRINT "COMPUTING!";GOTO 2000
1220 CLEAR ;:PRINT ;NT=0;TV=0;TV=1;FOR X=RTO YSTEP 2
1240 PRINT #1,"%(",X,")=",%(X)
1250 NEXT X;PRINT ";:RETURN ;RUN
1260 :RETURN ;STOP
2000 FOR Z=1TO 144;@(Z)=0;NEXT Z;A=0;FOR Y=-5TO 3;FOR X=0TO 15;A=A+1;IF PX(X,Y)@
(A)=1
2010 NEXT X;NEXT Y;A=0;CLEAR ;FOR Y=-32TO 32STEP 8;FOR X=-66TO 54STEP 8;A=A+1;IF
@(A)BOX X,Y,7,7,1
2020 NEXT X;NEXT Y;GOTO 20

```

Bob Weber  
 6594 Swartout Rd  
 Algonac, MI 48001

Load the program and RUN it. The program will draw a 9 x 16 grid on the screen, and there will be a flashing cursor in the bottom left hand corner. Move the cursor with the joystick, and when you have it located, turn the knob to the right and press the trigger. This will blacken in a square. If you want to 'erase', turn the knob to the left and press the trigger. When you are satisfied with the character, move the cursor to the right side of the screen and press the trigger. The machine will now compute the values and load them into a string. When it is finished, it will display the character in actual size on the screen and ask 'OK?'. If everything is the way you want it, prepare the tape you are going to use. and press GO. If it is not the way you want it, press any key other than GO, and you will be back in the character construction mode.

If the computer says 'DOES NOT COMPUTE', it means you have a single pixel placed in the left hand corner of either the left or right half of the drawing. When you do this you cannot load the values onto tape, because the poked value for one pixel at those locations is 32768, too big for the computer.



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ENTREPRENEURS may be interested in a new Newsletter devoted to the kitchen-table programmer, etc., who wants to use a microcomputer in business, or make a business out of his computer. Entitled MICRO MOONLIGHTER NEWSLETTER, it is supposed to talk about methods of operation, tax shelters, mail order, advertising, etc., all geared to the small operator. Inquire of J.Norman Goode, 2115 Bernard Ave., Nashville, TN. 37312..

DUNGEONS AND DRAGONS Game Aid Package - now with more programs, including player character generator. \$10. ppd Rich Tietjens PSC Box 542, APO miami, FL 34004

I've had a number of telephone calls from people looking for Fred Cornett. The best available data I have locates him at 711 Pineknot, Big Bear Lake, CA 92315 714-866-5826

Southern California dealer - Randy's TV P.O.Box 1109 El Centro CA 92244 has many old Bally videocades on sale, with a good deal of BASIC. Also in stock - Galactic Invasion, Space Invaders, Grand Prix

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